Family Farming: Corn, Cattle, and Conservation

By Mary M. Cressel

"I never wanted to do anything but farm," says Jim Martin of Decatur County, Indiana. For the Martins, farming is a family business—and conservation farming a way of life.

Martin and his son Jon, 23, own and operate Coffee Tree Farm, a general livestock and grain operation on 659 rolling acres in the southeastern part of the State. The land was first farmed by Martin's grandfather.

Jim and Jon Martin do all the farm work themselves, except for specialty work such as fertilizer spreading and some repairs. Another of Martin's sons, Ric, 27, helped run the farm until recently when he joined the Army.

"If we really need help," says Martin, "we wait for my two daughters, Pam and Jan, and their husbands to come home for the weekend—then we put them to work." Other helpers include Martin's wife Lou, who teaches third grade, and his father, Donald C. Martin, who at 83 still helps keep an eye on the cows.

Why the name, Coffee Tree Farm? There is a stand of coffee trees, but there's more to it than that. "We have a soft spot for the coffee trees," explains Martin. All the Martin children grew up tackling various 4-H conservation projects. For one forestry project, the whole family gathered leaves—but the coffee leaf, which was more than two feet long, was too big to fit on the display board. So the leaf itself

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was used as the subject of yet another 4-H demonstration project.

The coffee leaf project won a statewide 4-H contest, and several other 4-H'ers borrowed it and used it in surrounding counties.

What's Best for the Soil

Coffee Tree Farm is a productive operation because land-use decisions have always aimed at what's best for the soil. "We looked at the land," says Martin, "saw that some of it was rolling enough to erode, and decided a cattle operation was best."

The farm produces mostly corn and cattle, but hogs, soybeans, and a few acres of woodland complete the operation. Diversity of land use is matched by diversity of conservation practices. These include conservation tillage, terraces, woodland improvement, pasture renovation, and wildlife habitat development.

Jim Martin's awareness of conservation began in high school. There, in vocational agriculture classes, he learned about terraces and other conservation practices. But the Martin family has long been conservation-minded. In the early 1940's, Donald Martin got guidance on efficient farm management from Extension specialists at Purdue University.

"Dad used a five-year crop rotation system and put land in pasture that was too steep to use for cropland. We knew we had to manage our land to control erosion if the farming operation was to survive."

Crooked Terraces

So in 1944 the Martins installed one of the first gradient terrace systems. Some people call them "crooked terraces" because they closely followed the land's contour but were not parallel. The distance between each terrace could vary considerably. This made them somewhat inconvenient to farm.

"Those old crooked terraces were the first practice we built to control erosion," recalls Martin. Much later, in 1970, Coffee Tree Farm would have a complete conservation plan. The plan was prepared with the help of the U.S. Department of Agriculture's Soil Conservation Service (SCS), and Martin continues to update it.

Following the plan, Martin has installed a grassed waterway, grade stabilization structure, and sediment control basins. The waterway carries excess runoff off the field, the grade structure lets it down a steep drop so a gully won't form, and the sediment basins allow sediment to settle out before the runoff leaves the farm and heads for a nearby stream.

Martin is well known as an innovator in Decatur County, and his use of no-till is one of the main reasons why. With no-till, crops are planted directly into the residue from the previous crop. The residue protects the

soil from erosion, conserves moisture, and adds organic matter.

When Martin began using no-till, in 1974, he was one of the first farmers in the county to do so. His neighbors watched closely for the results.

Martin bought a four-row no-till planter to plant corn in red clover sod. "We learned a lot that first year," Martin remembers. "The second year was more successful. We're pleased with our no-till corn and doublecrop no-till soybeans after wheat."

Sprays When He Plants

The no-till soybeans weren't too successful at first, because of weeds. SCS district conservationist Ersel Rogers recalls that spraying for weed control wasn't effective because Martin was spraying at the wrong time. "Jim found a solution," says Rogers. "He mounted saddle tanks on his tractor and sprays at the same time he plants. And that is his last field operation until harvest."

Because of the Martins' diverse farm operation and willingness to try new conservation techniques, other farmers pay close attention to Coffee Tree Farm.

"When we started farming," explains Martin, "our land was right next to the country church, so everyone saw what we were doing. Dad always said, 'If you're going to flop, you may as well flop *big*.'

"One year we sprayed a hayfield by that church to get the field ready for no-till corn. One Sunday, long enough after spraying that the field had turned brown, no one at church could imagine what we had done to the hayfield. I told them it wasn't a hayfield—it was a cornfield.

"We didn't have a very good stand of corn that year, but folks told us later that we'd proved we were right—it *could* be done."

The no-till corn is always the Martins' best, thanks to their experience and patience. Their land has been the center of attention for many no-till tours and demonstrations. Martin talks to farmers all over Indiana about conservation tillage, and has helped many get started themselves. He even hosted a group of Brazilians who were interested in conservation farming.

Neighbor Switches

Bill Reichenbach, SCS area conservationist for southeastern Indiana, says it's important to have people like the Martins in the community, people who don't mind having their farms used as conservation showcases.

"I asked one of the Martins' neighbors," recalls Reichenbach, "why he finally changed to no-till. He said he'd been watching the Martins real close for about four years because he didn't think no-till would work. When he realized it did, he switched."

Jon Martin says, "We're better off no-till farming than fall-plowing with a moldboard plow. No-till and parallel terraces are re-

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SCS district conservationist Ersel Rogers (left) discusses Jim Martin's conservation plan that was developed in 1970. Under the plan Martin has installed a grassed waterway, terraces, and sediment basins to control erosion. He started no-till farming about nine years ago.

placing the old crooked terraces. We've got only one terrace left that was built in the 1940's."

The Martins have begun installing parallel terraces with underground tile outlets. The parallel terraces and the outlets control runoff from the field and make it easier to farm. Jon has a bulldozer, so father and son will do most of the work themselves. The tile is in place already, although the terraces aren't built yet.

Waste management is a high priority for the Martins, who own 125 Angus cows. With cost sharing from USDA's Agricultural Stabilization and Conservation Service (ASCS) and planning help from SCS, they have installed a manure pit made of precast concrete. The pit is 80 feet long, 35 feet wide, and 8 feet deep. It is located directly below the slotted floor of the cattle barn.

Rainwater that runs off the barn roof is channeled into the pit to make the waste fluid enough so it can be removed by a pump. It is then spread on the cropland as a fertilizer.

Rotation Grazing

The Martins use rotation grazing on their 170 acres of pasture. They use a no-till seeder to fertilize and renovate the pastures. Always looking for a new approach, the Martins are trying the Savory method of rotation grazing. This method was first used on wild game farms in South Africa.

The Martins' 28 acres of fenced pasture have been divided into five parcels. Electric fences maintain the respect of the cattle for the boundaries of these parcels. The shock doesn't injure the cattle, but they only brush against it once.

"The cows come running when I call them to switch fields," says Jim Martin. "They've learned that the grass really is greener on the other side. With the Savory method, I'm able to run more cattle on a smaller area, and it should eliminate damage to the soil and plants that overgrazing and trampling can cause."

The Martins grow grain sorghum to supplement forage supplied by the pastures. They green-chop the sorghum and feed it to the cattle. They have

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Martin feels that pasture management is very important. These cows are on a rotation grazing system in which they are put on a fresh pasture every three to four days. This enables him to carry more cattle per acre.

also developed three springs and two ponds to provide water for the beef cows.

Son Ric started the Martins' hog program before he joined the Army. He worked hard renovating old buildings to cut expenses, and by the time he left for boot camp the sow herd had grown to 18. Jim and Jon miss Ric's help with the hogs, but they don't mind the extra income that the hogs represent.

Woods and Wildlife

Trees have always been plentiful on the Martins' property, and woodland management and wildlife habitat are their newest areas of conservation work. The forestry division of the Indiana Department of Natural Resources (IDNR) prepared a management plan for 11 acres of black walnut and other hardwood trees to be managed for timber production. With the right mulching, thinning, and pruning, the Martins hope the walnuts will be more productive.

Two acres of open land have been planted to walnut. Between these trees the Martins planted European black alder. The alders will keep the black walnut growing straight and tall, and the shade they cast will naturally "prune" lower limbs of the walnut trees. The alders also supply the soil with nitrogen, which the walnuts need for good growth. The woodland is fenced to keep out livestock.

The IDNR conservation officer helped the Martins stock fish in the two ponds, which were originally built for livestock water and recreation. The newest pond has been fenced and turned into a haven for wildlife. IDNR supplied the Martins with wildlife seed packets. The packets contain seed of white and red pine, 'VA-70' japonica lespedeza, redbud, 'Cardinal' autumn-olive, and

a mixture of dogwoods. Ducks, quail, raccoon, and songbirds—including at least one Baltimore oriole—use the habitat area.

Martin's activities in conservation and agriculture extend far beyond his own farm operation. He is a past president of the Decatur County Beef Cattle Association and a member of the National Cattlemen's Association.

He also is current president of the Indiana Beef Cattle Association. "Many people connected with the association," says Martin, "are concerned about soil conservation as well as environmental controls. Being president is an endless job of promoting the industry and making it easier for cattlemen to make a better living."

Farmer of the Year

For 9 years Martin served as district supervisor for the Decatur County Soil and Water Conservation District (SWCD). During part of that time he was district chairman. He has also served with the Indiana Association of SWCD's as Area 7 chairman and chairman of the Forestry Committee.

Martin and his family were proud when in 1982 the Indiana Farm Bureau named him Conservation Farmer of the Year in recognition of his conservation work and his dedication to wise land use and efficient farm management.

But the Martins are prouder still of the legacy that conservation will provide for future generations at Coffee Tree Farm.

This open area planted to walnut and alder trees is part of Martin's woodland management development which

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was planned by the Indiana Department of Natural Resources. The soil is excellent for timber production.